

IN THE CLAIMS:

The status of the claims is noted below.

1. (Currently Amended) A light collection apparatus for collecting light from a light source, comprising:

a spherical lens including a surface having a spherical curvature; and

an optical transmission medium placed at a center of said spherical curvature of said spherical lens, said optical transmission medium including a connector detachably engaged to an attachment assembly on said lens for placing said optical transmission medium at said center of said spherical curvature of said spherical lens, said connector including a pivoting element for adjusting said optical transmission medium to said lens;

whereby said lens directs at least a portion of the light into said optical transmission medium.

2. (Cancelled)

3. (Currently Amended) The light collection apparatus of claim 1, wherein said attachment assembly and said lens are integrated as a single unit.

4. (Cancelled)

5. (Previously Presented) The light collection apparatus of claim 1, wherein said optical transmission medium includes an optical fiber.

6. (Cancelled)

7. (Previously Presented) The light collection apparatus of claim 1, wherein said lens includes a material having a predetermined index of refraction.

8. (Previously Presented) The light collection apparatus of claim 7, wherein the predetermined index of refraction is approximately 1.49.

9. (Previously Presented) The light collection apparatus of claim 8, wherein the material is acrylic.

10. (Previously Presented) The light collection apparatus of claim 7, wherein the predetermined index of refraction is approximately 1.39.

11. (Previously Presented) The light collection apparatus of claim 10, wherein the material is pyrex glass.

12. (Cancelled)

13. (Currently Amended) [The] A light collection apparatus [of claim 12] for collecting light from a light source, comprising:

a spherical lens including a surface having a spherical curvature, said spherical lens including an outer layer and an inner layer;

an optical transmission medium placed at a center of said spherical curvature of said spherical lens;

whereby said lens directs at least a portion of the light into said optical transmission medium; and

wherein an interface between said outer layer and said inner layer includes a second spherical curvature.

14. (Previously Presented) The light collection apparatus of claim 13, wherein a center of the second spherical curvature overlaps the center of the spherical curvature of the surface.

15. (Previously Presented) The light collection apparatus of claim 14, wherein the second spherical curvature is coaxial to the spherical curvature.

16. (Currently Amended) [The] A light collection apparatus [of claim 12], for collecting light from a light source, comprising:

a spherical lens including a surface having a spherical curvature, said spherical lens including an outer layer and an inner layer;

an optical transmission medium placed at a center of said spherical curvature of said spherical lens;

whereby said lens directs at least a portion of the light into said optical transmission medium; and

wherein the outer layer includes an outer layer material and the inner layer includes an inner layer material, and an index of refraction of the outer layer material is less than an index of refraction of the inner layer material.

17. (Previously Presented) The light collection apparatus of claim 1, further comprising a controller connected to said optical transmissions medium, said controller being adapted to control at least one of an output amount and an output characteristic of the directed light to be outputted to one or more outputs.

18. (Previously Presented) The light collection apparatus of claim 17, wherein the output characteristic includes a wavelength of the directed light.

19. (Previously Presented) The light collection apparatus of claim 17, wherein the one or more outputs includes an energy converter.

20. (Previously Presented) The light collection apparatus of claim 17, wherein the one or more outputs includes a lighting apparatus.

21. (Previously Presented) The light collection apparatus of claim 1, further comprising an energy converter connected to said optical transmissions medium, said energy converter being adapted to convert the directed light into a different form of energy.

22. (Previously Presented) The light collection apparatus of claim 21, wherein said energy converter includes a thermal photovoltaic cell.

23. (Previously Presented) The light collection apparatus of claim 21, wherein said energy converter includes a light-absorbing medium.

24. (Previously Presented) The light collection apparatus of claim 23, wherein said light-absorbing medium includes carbon particles.

25. (Previously Presented) The light collection apparatus of claim 21, wherein said energy converter includes an electricity generator.

26. (Previously Presented) The light collection apparatus of claim 21, further comprising an energy storage element connected to said energy converter, said energy storage element being adapted to store energy outputted by said energy converter.

27. (Previously Presented) The light collection apparatus of claim 1, wherein an operational arc of said surface is such that a focal point thereof is fixed and independent of a location of the light source.

28. (Previously Presented) The light collection apparatus of claim 27, wherein said optical transmission medium overlaps said focal point.

29. (Previously Presented) The light collection apparatus of claim 1, further comprising a light collector, whereby said light collector directs a remaining portion of the light towards the optical transmission medium.

30. (Previously Presented) The light collection apparatus of claim 29, wherein said light collector includes a convex surface.

31. (Previously Presented) The light collection apparatus of claim 29, wherein said light collector includes a fresnel surface.

32. (Previously Presented) The light collection apparatus of claim 29, wherein said light collector and said lens are integrated as a single unit.

33. (Previously Presented) The light collection apparatus of claim 29, wherein said light collector includes a conical shape.

34. (Previously Presented) The light collection apparatus of claim 33, wherein said light collector includes a surface that forms a frustrum of a cone.

35. (Previously Presented) The light collection apparatus of claim 33, wherein said light collector includes a reflective surface.

Claims 36-61 (Cancelled)